WEST Search History

[redacted]

DATE: Thursday, March 18, 2004

Hide?	Set Name	Query	Hit Count
	DB=USPT; PLUR=YES; OP=ADJ		
☐	L6	L5 and transgenic	109
☐	L5	compositae	540
☐	L4	L2 and compositae	1
☐	L3	L2 and arabidopsis	27
☐	L2	L1 and promoter	48
☐	L1	actin2 or actin 2 or act2	175

END OF SEARCH HISTORY

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NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2		"Ask CAS" for self-help around the clock
NEWS 3	SEP 09	CA/CAplus records now contain indexing from 1907 to the present
NEWS 4	DEC 08	INPADOC: Legal Status data reloaded
NEWS 5	SEP 29	DISSABS now available on STN
NEWS 6	OCT 10	PCTFULL: Two new display fields added
NEWS 7	OCT 21	BIOSIS file reloaded and enhanced
NEWS 8	OCT 28	BIOSIS file segment of TOXCENTER reloaded and enhanced
NEWS 9	NOV 24	MSDS-CCOHS file reloaded
NEWS 10	DEC 08	CABA reloaded with left truncation
NEWS 11	DEC 08	IMS file names changed
NEWS 12	DEC 09	Experimental property data collected by CAS now available in REGISTRY
NEWS 13	DEC 09	STN Entry Date available for display in REGISTRY and CA/CAplus
NEWS 14	DEC 17	DGENE: Two new display fields added
NEWS 15	DEC 18	BIOTECHNO no longer updated
NEWS 16	DEC 19	CROPU no longer updated; subscriber discount no longer available
NEWS 17	DEC 22	Additional INPI reactions and pre-1907 documents added to CAS databases
NEWS 18	DEC 22	IFIPAT/IFIUDB/IFICDB reloaded with new data and search fields
NEWS 19	DEC 22	ABI-INFORM now available on STN
NEWS 20	JAN 27	Source of Registration (SR) information in REGISTRY updated and searchable
NEWS 21	JAN 27	A new search aid, the Company Name Thesaurus, available in CA/CAplus
NEWS 22	FEB 05	German (DE) application and patent publication number format changes
NEWS 23	MAR 03	MEDLINE and LMEDLINE reloaded
NEWS 24	MAR 03	MEDLINE file segment of TOXCENTER reloaded
NEWS 25	MAR 03	FRANCEPAT now available on STN

NEWS EXPRESS	MARCH 5 CURRENT WINDOWS VERSION IS V7.00A, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 3 MARCH 2004
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
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FILE 'HOME' ENTERED AT 15:32:35 ON 18 MAR 2004

=> file agricola caplus biosis
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'AGRICOLA' ENTERED AT 15:32:52 ON 18 MAR 2004

FILE 'CAPLUS' ENTERED AT 15:32:52 ON 18 MAR 2004
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FILE 'BIOSIS' ENTERED AT 15:32:52 ON 18 MAR 2004
COPYRIGHT (C) 2004 BIOLOGICAL ABSTRACTS INC.(R)

=> s act2 or actin2 or actin 2
L1 318 ACT2 OR ACTIN2 OR ACTIN 2

=> s l1 and promoter
L2 50 L1 AND PROMOTER

=> dup rem l2
PROCESSING COMPLETED FOR L2
L3 41 DUP REM L2 (9 DUPLICATES REMOVED)

=> d 1-10 ti

L3 ANSWER 1 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN
TI Use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue

L3 ANSWER 2 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN
TI Heat-stable, protease-resistant chaperonin-like oligomeric proteins of plants, cDNAs encoding them and their use in the expression of foreign genes in plants

L3 ANSWER 3 OF 41 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Maize promoters.

L3 ANSWER 4 OF 41 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Maize A3 **promoter** and methods for use thereof.

L3 ANSWER 5 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
TI Multiple conserved 5' elements are required for high-level pollen expression of the Arabidopsis reproductive actin ACT1

L3 ANSWER 6 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2
TI An arabidopsis **ACT2** dominant-negative mutation, which disturbs F-actin polymerization, reveals its distinctive function in root development

L3 ANSWER 7 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 3
TI Ral GDP Dissociation Stimulator and Ral GTPase Are Involved in Myocardial Hypertrophy

L3 ANSWER 8 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4
TI Transformation of peanut using a modified bacterial mercuric ion reductase

gene driven by an actin **promoter** from Arabidopsis thaliana

L3 ANSWER 9 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN
TI Heat-stable, protease-resistant chaperonin-like oligomeric proteins of plants, cDNAs encoding them and their use in the expression of foreign genes in plants

L3 ANSWER 10 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN
TI A bi-directional dual **promoter** complex with enhanced **promoter** activity for transgene expression in eukaryotes

=> d 4 so

L3 ANSWER 4 OF 41 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
SO Official Gazette of the United States Patent and Trademark Office Patents, (June 24 2003) Vol. 1271, No. 4. http://www.uspto.gov/web/menu/patdata.htm 1. e-file.
ISSN: 0098-1133 (ISSN print).

=> d 2 so

L3 ANSWER 2 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN
SO U.S. Pat. Appl. Publ., 70 pp., Cont.-in-part of Appl. No. PCT/IL02/00174.
CODEN: USXXCO

=> d 2 pi

L3 ANSWER 2 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003092624	A1	20030515	US 2002-233409	20020904
	WO 2002070647	A2	20020912	WO 2002-IL174	20020305
	WO 2002070647	C1	20031127		

W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

=> d 8 so

L3 ANSWER 8 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4
SO Journal of Plant Physiology (2003), 160(8), 945-952
CODEN: JPPHEY; ISSN: 0176-1617

=> d 8 ab

L3 ANSWER 8 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4
AB In order to test an alternative selectable marker system for the production of transgenic peanut plants (Arachis hypogaea), the bacterial mercuric ion reductase gene, merA, was introduced into embryogenic cultures via microprojectile bombardment. MerA reduces toxic Hg(II) to the volatile and less toxic metallic mercury mol., Hg(0), and renders its source Gram-neg. bacterium mercury resistant. A codon-modified version of the

merA gene, MerApe9, was cloned into a plant expression cassette containing the **ACT2 promoter** from Arabidopsis thaliana and the NOS terminator. The expression cassette also was inserted into a second vector containing the hygromycin resistance gene driven by the UBI3 **promoter** from potato. Stable transgenic plants were recovered through hygromycin-based selection from somatic embryo tissues bombarded with the plasmid containing both genes. However, no transgenic somatic embryos were recovered from selection on 50-100 μmol/L HgCl2. Expression of merA as mRNA was detected by Northern blot anal. in leaf tissues of transgenic peanut, but not in somatic embryos. Western blot anal. showed the production of the mercuric ion reductase protein in leaf tissues. Differential responses to HgCl2 of embryo-derived explants from segregating R1 seeds of one transgenic line also were observed

=> d 10 ab

L3 ANSWER 10 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN
AB The present invention is directed to bidirectional **promoter** complexes that are effective for enhancing transcriptional activity of transgenes. The bidirectional promoters of the invention include a modified enhancer region with at least two core promoters on either side of the modified enhancer in a divergent orientation. The enhanced **promoter** activities are demonstrated using a construct containing two reporter genes (directed by the same enhancer-core **promoter** element in the tandem order) by reverting the 2nd **promoter** orientation in the divergent direction and keeping two copies of enhancer-core **promoter** elements back to back. These two back-to-back enhancer-core **promoter** elements, also called bi-directional dual **promoter** complex BDPC, are tested in the contact of two enhancer or 4-enhancer plus CaMV 35S core **promoter** . The dramatic increase of both reporter genes are observed in the transformed grape. Furthermore, various **promoter**-based BDPC fragments are provided for gene regulation in transgenic plants.

=> d 11-20 ti

L3 ANSWER 11 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN
TI Use of arsenate reductase, γ-glutamylcysteine synthase, glutathione synthase or phytochelatin synthase for heavy metal resistance of transgenic plants and phytoremediation of environmental contamination

L3 ANSWER 12 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN
TI Crucifer tobamovirus vector containing internal ribosome entry sites for cap-independent translation of heterologous genes in transgenic plants

L3 ANSWER 13 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN
TI Construction of regulated systems in plants using multiple transformations using infection with a plant viral vector to initiate regulated processes

L3 ANSWER 14 OF 41 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Rice **actin 2 promoter** and intron and methods for use thereof.

L3 ANSWER 15 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN
TI Both vegetative and reproductive actin isovariants complement the stunted root hair phenotype of the Arabidopsis **act2**-1 mutation

L3 ANSWER 16 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN
TI Engineering tolerance and hyperaccumulation of arsenic in plants by combining arsenate reductase and γ-glutamylcysteine synthetase expression

L3 ANSWER 17 OF 41 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI High level arsenic and mercury resistance in plants overexpressing bacterial gamma-glutamylcysteine synthetase.

L3 ANSWER 18 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN
TI Hypoxic regulation of inducible nitric oxide synthase via hypoxia inducible factor-1 in cardiac myocytes. [Erratum to document cited in CA132:277525]

L3 ANSWER 19 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN
TI Maize glycine-rich protein **promoter** compositions and methods for its use in plant transformation

L3 ANSWER 20 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN
TI Promoters of Arabidopsis actin and elongation factor EF1α genes and their use in driving expression of herbicide resistance genes in transgenic plants

=> d 11 kwic

L3 ANSWER 11 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN
AB . . . and plants which contain and express at least one phytochelatin biosynthetic coding sequence under the regulatory control of the strong **ACT2** constitutive **promoter** or the light-inducible SRS1 **promoter** and/or a plant-expressible arsenate reductase coding sequence. Optionally the plant expressing the at least one phytochelatin biosynthetic enzyme coding sequence. . .
IT **Promoter** (genetic element)
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(19S, cauliflower mosaic virus, for ArsC gene; use of arsenate reductase, γ-glutamylcysteine synthase, glutathione synthase or phytochelatin synthase for heavy metal resistance of transgenic plants)
IT Actins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(2, **promoter** of gene for, of Arabidopsis thaliana; use of arsenate reductase, γ-glutamylcysteine synthase, glutathione synthase or phytochelatin synthase for heavy metal resistance of transgenic plants)
IT Cauliflower mosaic virus
(35S or 19S **promoter** for ArsC gene; use of arsenate reductase, γ-glutamylcysteine synthase, glutathione synthase or phytochelatin synthase for heavy metal resistance of transgenic plants and phytoremediation of environmental contamination)
IT **Promoter** (genetic element)
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(35S, cauliflower mosaic virus, for ArsC gene; use of arsenate reductase, γ-glutamylcysteine synthase, glutathione synthase or phytochelatin synthase for heavy metal resistance of transgenic plants)
IT Arabidopsis thaliana
(**Actin2 promoter** of; use of arsenate reductase, γ-glutamylcysteine synthase, glutathione synthase or phytochelatin synthase for heavy metal resistance of transgenic plants and phytoremediation of environmental contamination)
IT Light
(ArsC gene **promoter** inducible by; use of arsenate reductase, γ-glutamylcysteine synthase, glutathione synthase or phytochelatin synthase for heavy metal resistance of transgenic plants and phytoremediation of environmental contamination)
IT Soybean (Glycine max)
(SRS1 gene **promoter**; use of arsenate reductase, γ-glutamylcysteine synthase, glutathione synthase or

phytochelatin synthase for heavy metal resistance of transgenic plants and phytoremediation of environmental contamination)

IT **Promoter** (genetic element)
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(constitutive or light-inducible, for ArsC gene; use of arsenate reductase, γ-glutamylcysteine synthase, glutathione synthase or phytochelatin synthase for heavy metal resistance of transgenic plants)

IT 60267-61-0, Ubiquitin
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**promoter** of gene for, ArsC gene expression using; use of arsenate reductase, γ-glutamylcysteine synthase, glutathione synthase or phytochelatin synthase for heavy metal resistance of transgenic plants)

IT 9027-23-0, Rubisco
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(small subunit, **promoter** of gene SRS1 for, of soybean; use of arsenate reductase, γ-glutamylcysteine synthase, glutathione synthase or phytochelatin synthase for heavy metal resistance of transgenic plants)

=> d 11 pi

L3 ANSWER 11 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002048335	A2	20020620	WO 2001-US48105	20011213
	WO 2002048335	C2	20030109		
	WO 2002048335	A3	20030508		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

	AU 2002029025	A5	20020624	AU 2002-29025	20011213

=> d 14 so

L3 ANSWER 14 OF 41 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
SO Official Gazette of the United States Patent and Trademark Office Patents, (Aug. 6, 2002) Vol. 1261, No. 1. http://www.uspto.gov/web/menu/patdata.htm l. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.

=> d 14 pi

L3 ANSWER 14 OF 41 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
PI US 6429357 August 06, 2002

=> d 20 pi

L3 ANSWER 20 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001044457	A2	20010621	WO 2000-US33633	20001212
	WO 2001044457	A3	20020110		

```
        W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
            HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
            LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
            SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU,
            ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
            DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
            BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
    BR 2000016460     A    20020827       BR 2000-16460    20001212
    EP 1240340        A2   20020918       EP 2000-984233   20001212
        R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
    JP 2003516753     T2   20030520       JP 2001-545534   20001212
    US 2002144304     A1   20021003       US 2000-737626   20001215
    US 6660911        B2   20031209
    US 6462258        B1   20021008       US 2000-737698   20001215
    US 2003199681     A1   20031023       US 2003-427169   20030501
    US 2003199682     A1   20031023       US 2003-427180   20030501

=> d 21-30 ti

L3   ANSWER 21 OF 41  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Increasing the efficiency of photosynthetic carbon fixation in plants by
     increasing bicarbonate uptake

L3   ANSWER 22 OF 41  BIOSIS  COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI   Maize A3 promoter and methods for use thereof.

L3   ANSWER 23 OF 41  AGRICOLA  Compiled and distributed by the National
     Agricultural Library of the Department of Agriculture of the United States
     of America.  It contains copyrighted materials.  All rights reserved.
     (2004) on STN                                          DUPLICATE 5
TI   One plant actin isovariant, ACT7, is induced by auxin and required for
     normal callus formation.

L3   ANSWER 24 OF 41  CAPLUS  COPYRIGHT 2004 ACS on STN DUPLICATE 6
TI   Expression of a bifunctional green fluorescent protein (GFP) fusion marker
     under the control of three constitutive promoters and enhanced derivatives
     in transgenic grape (Vitis vinifera)

L3   ANSWER 25 OF 41  BIOSIS  COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI   Expression of a GFP fusion marker under the control of three constitutive
     promoters and enhanced derivatives in transgenic grape.

L3   ANSWER 26 OF 41  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Maize RS81 promoter and methods for its use in plant
     transformation

L3   ANSWER 27 OF 41  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Maize RS81 promoter and methods for its use in plant
     transformation

L3   ANSWER 28 OF 41  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   The rice actin 2 promoter and intron and
     their use for plant transformation

L3   ANSWER 29 OF 41  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Maize RS324 promoter and methods for its use in plant
     transformation

L3   ANSWER 30 OF 41  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Transgenic plants expressing genes for enzymes of methionine biosynthesis
```

showing improved tolerance of stress conditions

```
=> d 24 so

L3   ANSWER 24 OF 41  CAPLUS  COPYRIGHT 2004 ACS on STN DUPLICATE 6
SO   Plant Science (Shannon, Ireland) (2001), 160(5), 877-887
     CODEN: PLSCE4; ISSN: 0168-9452


=> d 25 so

L3   ANSWER 25 OF 41  BIOSIS  COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
SO   In Vitro Cellular and Developmental Biology Animal, (March, 2001) Vol. 37,
     No. 3 Part 2, pp. 22.A. print.
     Meeting Info.: Congress on In Vitro Biology. St. Louis, Missouri, USA.
     June 16-20, 2001. Society for In Vitro Biology.
     ISSN: 1071-2690.


=> d 26 pi

L3   ANSWER 26 OF 41  CAPLUS  COPYRIGHT 2004 ACS on STN
     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
     ---------------   ----  --------       ---------------  --------
PI   WO 2000073474      A1   20001207       WO 2000-US13199  20000512
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
             CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
             ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
             LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
             SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA,
             ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
             DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     US 6232526          B1   20010515       US 1999-312038   19990514
     US 2002104121       A1   20020801       US 2001-850964   20010507
     US 6583338          B2   20030624


=> d 28 so

L3   ANSWER 28 OF 41  CAPLUS  COPYRIGHT 2004 ACS on STN
SO   PCT Int. Appl., 180 pp.
     CODEN: PIXXD2


=> d 28 pi

L3   ANSWER 28 OF 41  CAPLUS  COPYRIGHT 2004 ACS on STN
     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
     ---------------   ----  --------       ---------------  --------
PI   WO 2000070067      A1   20001123       WO 2000-US13303  20000512
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             CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
             ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
             LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
             SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA,
             ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
             DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     US 6429357          B1   20020806       US 1999-312304   19990514
     EP 1179081          A1   20020213       EP 2000-942636   20000512
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

=> d 30 so

L3 ANSWER 30 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN
SO PCT Int. Appl., 89 pp.
CODEN: PIXXD2

=> d 30 pi

L3 ANSWER 30 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000070016	A2	20001123	WO 2000-IL281	20000518
	WO 2000070016	A3	20010215		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

	US 200046078	A5	20001205	US 2000-46078	20000518

=> d 31-41 ti

L3 ANSWER 31 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN
TI Regulation of viral gene expression by sense and antisense-expressing cassettes forming double-stranded RNA

L3 ANSWER 32 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN
TI Use of Arabidopsis **ACT2** gene **promoter** for gene expression in Compositae

L3 ANSWER 33 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN
TI Novel maize promoters for constitutive gene expression in transgenic plants

L3 ANSWER 34 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN
TI Arabidopsis DNA encoding a Mg2+, Zn2+/H+ exchanger, and transgenic plants with enhanced stress tolerance

L3 ANSWER 35 OF 41 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN
TI The Arabidopsis thaliana ACT4/ACT12 actin gene subclass is strongly expressed throughout pollen development.

L3 ANSWER 36 OF 41 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 7
TI Strong, constitutive expression of the Arabidopsis **ACT2**/ACT8 actin subclass in vegetative tissues.

L3 ANSWER 37 OF 41 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States

of America. It contains copyrighted materials. All rights reserved. (2004) on STN
TI Conserved expression of the Arabidopsis ACT1 and ACT3 actin subclass in organ primordia and mature pollen.

L3 ANSWER 38 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN
TI Differential detection of multiple DNA-binding complexes using dissimilar polyanion competitors

L3 ANSWER 39 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN
TI Rice actin gene and **promoter** and 5' intron for heterologous gene expression

L3 ANSWER 40 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN
TI The gene encoding the Act-2 cytokine. Genomic structure, HTLV-I/Tax responsiveness of 5' upstream sequences, and chromosomal localization

L3 ANSWER 41 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN
TI Cloning and expression of a lymphocyte activation gene (LAG-1)

=> d 31 so

L3 ANSWER 31 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN
SO PCT Int. Appl., 75 pp.
CODEN: PIXXD2

=> d 31 pi

L3 ANSWER 31 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000068374	A1	20001116	WO 2000-EP4117	20000508
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1177283	A1	20020206	EP 2000-927165	20000508
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	BR 2000010496	A	20020402	BR 2000-10496	20000508
	JP 2002543783	T2	20021224	JP 2000-616341	20000508
	ZA 2001009152	A	20020906	ZA 2001-9152	20011106

=> d 32 pi

L3 ANSWER 32 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000037661	A1	20000629	WO 1999-GB4317	19991216
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,				

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                DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
                CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG


=> d 33 pi

L3   ANSWER 33 OF 41  CAPLUS  COPYRIGHT 2004 ACS on STN
     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
     ---------------   ----  --------       ---------------  --------
PI   WO 2000020571      A2   20000413       WO 1999-US23081  19991005
     WO 2000020571      A3   20000921
         W:  AE, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
             CU, CZ, CZ, DE, DE, DK, DK, DM, EE, EE, ES, FI, FI, GB, GD, GE,
             GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
             LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO,
             RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
             UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
             DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     US 6504083         B1   20030107       US 1999-410935   19991004
     CA 2343721         AA   20000413       CA 1999-2343721  19991005
     AU 9965077         A1   20000426       AU 1999-65077    19991005
     EP 1117818         A2   20010725       EP 1999-953047   19991005
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, IE, FI
     US 2003200557      A1   20031023       US 2001-784403   20010215
     US 6670467         B2   20031230
     US 2003097690      A1   20030522       US 2002-278255   20021023


=> d 34 so

L3   ANSWER 34 OF 41  CAPLUS  COPYRIGHT 2004 ACS on STN
SO   PCT Int. Appl., 52 pp.
     CODEN: PIXXD2


=> d 34 pi

L3   ANSWER 34 OF 41  CAPLUS  COPYRIGHT 2004 ACS on STN
     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
     ---------------   ----  --------       ---------------  --------
PI   WO 9961616         A2   19991202       WO 1999-IL277    19990525
     WO 9961616         A3   20000413
         W:  AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
             DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
             JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
             MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
             TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ,
             MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
             ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
             CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     AU 9940562         A1   19991213       AU 1999-40562    19990525
     US 6677506         B1   20040113       US 2000-701068   20001124


=> d 35 so

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     of America.  It contains copyrighted materials.  All rights reserved.
     (2004) on STN
SO   The Plant journal : for cell and molecular biology, Aug 1996. Vol. 10, No.
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2. p. 189-202
Publisher: Oxford : BIOS Scientific Publishers Ltd and Blackwell Sciences Ltd.
ISSN: 0960-7412

=> d 35 ab

L3 ANSWER 35 OF 41 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN

AB Plants contain complex actin gene families composed of several diverse and ancient subclasses of genes. One Arabidopsis actin gene subclass represented by the ACT4 and ACT12 genes has been isolated and characterized. Both actin genes have typical plant actin gene structures, including three small introns interrupting the coding region and an intron within the mRNA leader. Their encoded proteins differ from each other in only one amino acid, whereas they differ in 3-10% of their amino acids from the other five Arabidopsis actin subclasses. They also share a few small blocks of DNA sequence homology in the 5' flanking region near their TATA boxs, but not in their introns, 3' flanking regions, or degenerate positions within codons. Southern analysis with genes-pecific probes from 5' flanking sequences showed that both were single copy genes in the genome. Both RNA gel blot analysis with 3' gene-speclfic probes and reverse transcriptase-mediated polymerase chain reactions (RT-PCR) with gene-specific primers detected low levels of ACT4 and ACT12 mRNAs in flowers and very high levels in pollen. The RT-PCR detected very low levels of these mRNAs in the vegetative organs. The 5' region from both genes, including the **promoter** region, TATA box, the sequence for the mRNA leader and its intron, and the first 19 actin codons, was fused to a beta-glucuronidase (GUS) reporter gene. Expression of the GUS fusions were examined histochemically in 40 independent transgenic Arabidopsis plants. Expression of the ACT4/GUS fusion was restricted to young vascular tissues, tapetum, and developing and mature pollen. Similar expression patterns in these tissues and cell types were observed for ACT12/GUS fusion, yet unlike ACT4, ACT12 was also strongly expressed in the root cap and in a ring of pericycle tissues during lateral root initiation and early development. The unique expression patterns of the ACT4/ACT12 actin gene subclass are discussed in light of recent data on the other expressed members of the Arabidopsis actin gene family.

=> d kwic

L3 ANSWER 1 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN

TI Use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue

AB The current invention provides the **promoter** of the Zea mays nuclear gene encoding glutamine synthetase. Compns. comprising this sequence are described, as are plants transformed with. . . of these sequences. The methods of the invention include the direct creation of transgenic plants with the cytoplasmic glutamine synthetase **promoter** by genetic transformation, as well as by plant breeding methods. The sequences of the invention represent a valuable new tool. . .

ST corn cytoplasm glutamine synthetase gene **promoter** sequence; glutamine synthetase **promoter** transgene expression female reproductive tissue

IT Polyoxyalkylenes, biological studies
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(-mediated transformation of protoplasts; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

IT Agrobacterium
(-mediated transformation; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)
IT Genetic element
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(3'-untranslated region, PIN II; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)
IT Protoplast and Spheroplast
(POEG-mediated transformation of; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)
IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(chlorophyll a/b-binding, transit peptide for protein encoded by glutamine synthetase gene **promoter**; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)
IT Transit peptides
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(chloroplast, for protein encoded by glutamine synthetase gene **promoter**; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)
IT Mycotoxins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(comtamination reduced by glutamine synthetase gene **promoter**; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)
IT Reproduction, plant
(female sterility, reduced by products encoded by glutamine synthetase gene **promoter**; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)
IT cDNA sequences
(for glutamine synthetase of corn; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)
IT Electroporation
Microprojectile bombardment
(for plant transformation; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)
IT Signal peptides
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(for protein encoded by glutamine synthetase gene **promoter**; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)
IT Herbicide resistance
(glutamine synthetase gene **promoter** encoding protein involved in; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)
IT Cereal (grain)
(glutamine synthetase gene **promoter** encoding proteins for improved quality of; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)
IT Nutrients
(glutamine synthetase gene **promoter** encoding proteins for improved utilization of; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)
IT Disease resistance, plant

(glutamine synthetase gene **promoter** encoding proteins involved in improving; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

IT Insecticides
(glutamine synthetase gene **promoter** encoding; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

IT Gene, plant
RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(gs1-2, for glutamine synthetase; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

IT Genetic element
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(intron, rice actin 1 or 2 genes, as enhancer; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

IT Transport proteins
RL: AGR (Agricultural use); BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(nutrient, glutamine synthetase gene **promoter** encoding; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

IT DNA sequences
(of glutamine synthetase gene **promoter** of corn; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

IT Protein sequences
(of glutamine synthetase of corn; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

IT Phenotypes
(of plants altered by products encoded by glutamine synthetase gene **promoter**; use of corn cytoplasmic glutamine synthetase gene **promoter** for tra

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promoter for transgenic expression in female reproductive tissue)

IT Stress, plant
(resistance improved by glutamine synthetase gene **promoter**; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

IT Enhancer (genetic element)
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(rice actin 1 or **actin 2** intron; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

IT Actins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(rice, isoforms 1 and 2, enhancer element comprising introns of genes for,; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

IT Genetic markers
(selection of screening,for plants encoded by glutamine synthetase gene **promoter**; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

IT Alfalfa (Medicago sativa)
Barley
Canola

Cotton
Liliopsida
Magnoliopsida
Millet
Oat
Potato (Solanum tuberosum)
Rice (Oryza sativa)
Rye
Seed
Sorghum
Soybean (Glycine max)
Sugarcane
Sunflower
Tobacco
Tomato
Wheat
(transgenic; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

IT Chloroplast
(transit peptide for protein encoded by glutamine synthetase gene **promoter**; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

IT Poaceae
(turf grass, transgenic; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

IT Breeding, plant
Corn
Embryophyta
Plant cell
Plant tissue
(use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

IT **Promoter** (genetic element)
RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

IT 25322-68-3, PEG
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(-mediated transformation of protoplasts; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

IT 153423-75-7
RL: AGR (Agricultural use); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(amino acid sequence; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

IT 9024-90-2, Nitrilase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(bromoxynil resistant, selection marker encoded by glutamine synthetase gene **promoter**; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

IT 409-21-2, Silicon carbide (SiC), biological studies
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(fibers, -mediated plant transformation; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

IT 9068-73-9, Synthase, 5-enolpyruvoylshikimate 3-phosphate
RL: BSU (Biological study, unclassified); BIOL (Biological study)

(glyphosate resistant, selection marker encoded by glutamine synthetase gene **promoter**; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

IT 152115-54-3 562880-18-6
RL: AGR (Agricultural use); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(nucleotide sequence; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

IT 9031-59-8, Anthranilate synthase 56941-28-7, Aminoglycoside phosphotransferase 62213-36-9, Neomycin phosphotransferase 88361-67-5 111069-93-3, Phosphinothricin acetyltransferase 143375-68-2, Glyphosate oxidoreductase 146359-46-8, Dalapon dehalogenase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(selection marker encoded by glutamine synthetase gene **promoter** ; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

IT 9027-23-0, Ribulose bisphosphate carboxylase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(small subunit, transit peptide for protein encoded by glutamine synthetase gene **promoter**; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

IT 9055-59-8, Dihydrodipicolinate synthase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(transit peptide for protein encoded by glutamine synthetase gene **promoter**; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

IT 562881-55-4 562881-56-5 562881-57-6 562881-58-7 562881-59-8 562881-60-1 562881-61-2 562881-62-3 562881-63-4 562881-64-5 562881-65-6 562881-66-7 562881-67-8 562881-68-9 562881-69-0 562881-70-3 562881-71-4
RL: PRP (Properties)
(unclaimed nucleotide sequence; use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

IT 9023-70-5, Glutamine synthetase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(use of corn cytoplasmic glutamine synthetase gene **promoter** for transgenic expression in female reproductive tissue)

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=> d 35 kwic

L3 ANSWER 35 OF 41 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN

NTE GenBank accession numbers U41998 (**ACT2**) and U42007 (ACT8) are now omitted from "Strong, constitutive expression of the Arabidopsis **ACT2**/ACT8 actin subclass in vegetative tissue" by Y.Q. An, J.M. McDowell, S. Huang, E.C. McKinney, S. Chambliss and R.B. Meagher, this. . .

AB . . . RT-PCR detected very low levels of these mRNAs in the vegetative organs. The 5' region from both genes, including the **promoter** region, TATA box, the sequence for the mRNA leader and its intron, and the first 19 actin codons, was fused. . .

=> d d 37 ab
'D' IS NOT A VALID FORMAT
In a multifile environment, a format can only be used if it is valid
in at least one of the files. Refer to file specific help messages
or the STNGUIDE file for information on formats available in
individual files.
REENTER DISPLAY FORMAT FOR ALL FILES (FILEDEFAULT):ab

L3 ANSWER 37 OF 41 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN

AB We have proposed that ancient and divergent classes of plant actin genes have been preserved throughout vascular plant evolution, because they have distinct patterns of gene regulation. The hypothesis was explored for ACT1 and ACT3, which represent one of the six ancient subclasses in the Arabidopsis actin gene family. Comparison of ACT1 and ACT3 cDNA and genomic sequences revealed highly divergent flanking and intron sequences, whereas they encoded nearly identical proteins. Quantification of their level of divergence suggests that they have not shared a common ancestor for 30 to 60 million years. Gene-specific RNA gel blot hybridization and reverse transcriptase-polymerase chain reaction analyses demonstrated that the distribution of ACT1 and ACT3 mRNAs was very similar: both preferentially accumulated at high levels in mature pollen and at very low levels in the other major organs. The 5' flanking regions of both genes, including the **promoter**, leader exon and intron, and the first 19 codons, were fused to the beta-glucuronidase (GUS) reporter gene. The expression of these reporter fusions was examined in a large number of transgenic Arabidopsis plants. Histochemical assays demonstrated that both ACT1-GUS and ACT3-GUS constructs were expressed preferentially in pollen, pollen tubes, and in all organ primordia, including those in roots, shoots, and the inflorescence. Comparison of the 5' flanking regions of ACT1 and ACT3 revealed a number of short conserved sequences, which may direct their common transcriptional and post-transcriptional regulation. The expression patterns observed were distinct from those of any other Arabidopsis actin subclass. The conservation of their expression pattern and amino acid sequences suggests that this actin subclass plays a distinct and required role in the plant cytoskeleton.

=> d 37 kwic

L3 ANSWER 37 OF 41 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN

AB . . . pollen and at very low levels in the other major organs. The 5' flanking regions of both genes, including the **promoter**, leader exon and intron, and the first 19 codons, were fused to the beta-glucuronidase (GUS) reporter gene. The expression of. . .

ST GenBank U39449; GenBank U39480; act 1 gene; **act2** gene; flanking sequences; molecular sequence data

=> d 39 so

L3 ANSWER 39 OF 41 CAPLUS COPYRIGHT 2004 ACS on STN

SO PCT Int. Appl., 48 pp.
CODEN: PIXXD2

=> d 39 pi

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L3   ANSWER 39 OF 41  CAPLUS  COPYRIGHT 2004 ACS on STN
     PATENT NO.         KIND  DATE           APPLICATION NO.   DATE
     ---------------    ----  --------       ---------------   --------
PI   WO 9109948          A1   19910711       WO 1991-US73      19910104
         W:  AU, CA, HU, JP, KR, SU
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE
     AU 9171827          A1   19910724       AU 1991-71827     19910104
     US 5684239          A    19971104       US 1994-303446    19940909


=> d 39 ab

L3   ANSWER 39 OF 41  CAPLUS  COPYRIGHT 2004 ACS on STN
AB   A cDNA and gene for rice actin 1 are cloned and the promoter
     identified and characterized for use in driving the expression of
     heterologous genes in transgenic monocotyledons.  The cDNA was cloned
     using a probe from the rice actin 2 gene that
     cross-hybridizes to many actin sequences as probe.  After screening with
     actin 2-specific probes identity was confirmed by
     sequencing.  Inspection of a sequence identified a 5' non-coding exon and
     intron and the role of the intron in gene expression was studied.  A
     series of deletion derivs. in which the 5' region was progressively
     deleted were used to drive expression of a β-glucuronidase (GUS) gene
     in rice protoplasts.  After deletion of the intron, levels of expression
     fell from .apprx.200% higher than that of controls transformed with the
     prior art construct pAl1GusN to <5% of controls.


=> s rice and actin 2
L4            9 RICE AND ACTIN 2

=> dup rem l4
PROCESSING COMPLETED FOR L4
L5             9 DUP REM L4 (0 DUPLICATES REMOVED)

=> d 1-9 ti

L5   ANSWER 1 OF 9  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Use of corn cytoplasmic glutamine synthetase gene promoter for transgenic
     expression in female reproductive tissue

L5   ANSWER 2 OF 9  BIOSIS  COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI   Rice actin 2 promoter and intron and methods
     for use thereof.

L5   ANSWER 3 OF 9  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Maize glycine-rich protein promoter compositions and methods for its use
     in plant transformation

L5   ANSWER 4 OF 9  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Maize RS81 promoter and methods for its use in plant transformation

L5   ANSWER 5 OF 9  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Maize RS81 promoter and methods for its use in plant transformation

L5   ANSWER 6 OF 9  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   The rice actin 2 promoter and intron and
     their use for plant transformation

L5   ANSWER 7 OF 9  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Maize RS324 promoter and methods for its use in plant transformation

L5   ANSWER 8 OF 9  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Rice actin gene and promoter and 5' intron for heterologous gene
```

expression

L5 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
TI Genomic nucleotide sequence of four **rice** (Oryza sativa) actin genes

=> d 2 pi

L5 ANSWER 2 OF 9 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
PI US 6429357 August 06, 2002

=> d 6 pi

L5 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000070067	A1	20001123	WO 2000-US13303	20000512
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6429357	B1	20020806	US 1999-312304	19990514
EP 1179081	A1	20020213	EP 2000-942636	20000512
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

=> d 9 ab

L5 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
AB A **rice** genomic library in λEMBL4 was screened with a heterologous actin probe. Fourteen independent clones were isolated and subcloned into pUC13. By mapping restriction sites and carrying out cross-hybridization studies, 4 different classes of clones were identified and designated RAc1, RAc2, RAc3, and RAc7. Sequencing of the subcloned actin genes was carried out by the dideoxynucleotide chain-termination method, and computer anal. of the resulting sequences was done using the Micro-genie sequence anal. program. The coding sequences of the 4 **rice** actin genes were compared directly to each other to yield percentage identity at the nucleotide and amino acid levels. This anal. revealed that the **rice** actin genes, like other plant actins, are highly diverged from each other at both the nucleotide and amino acid levels. The percent nucleotide sequence identity among the 4 **rice** actin genes ranges from 77.9% (RAc2 vs. RAc7) to 80.9% (RAc1 vs. RAc2), and the amino acid similarity ranges from 84.2% (RAc3 vs. RAc7) to 90.5% (RAc1 vs. RAc2).

=> d 7 ab

L5 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
AB The current invention provides the maize RS324 promoter. Compns. comprising this sequence are described, as are plants transformed with such compns. Further provided are methods for the expression of transgenes in plants comprising the use of these sequences. The methods of the invention include the direct creation of transgenic plants with the RS324 promoter by genetic transformation, as well as by plant breeding

methods. RS324 promoter was isolated from a maize B73 genomic library and fused tot he gus reporter gene, with and without a modified (internal deletion) **rice actin 2** intron 1. The RS324 promoter is the promoter of genes expressed in maize root tissue but not in kernel tissue, and in mol. anal., was shown to have a root-specific expression profile. Transient expression assays in microparticle bombarded maize suspension cells and in excised maize root and leaf tissue were carried out to determine the functionality of the promoter. The promoter was functionally active when used in conjunction with the modified **rice actin 2** intron 1. Furthermore, the RS324 promoter-intron combination achieved expression levels that are at least 56% greater than the expression level of the strong actin 1 promoter-actin 1 intron combination. The sequences of the invention represent a valuable new tool for the creation of transgenic plants, preferably having one or more added beneficial characteristics.

```
=> d 3 ab

L5   ANSWER 3 OF 9  CAPLUS  COPYRIGHT 2004 ACS on STN
AB   The current invention provides the promoter of a Zea mays glycine-rich
     protein (ZMGRP) gene. The ZMGRP promoter represents an inducible
     constitutive promoter which may find wide utility in directing the
     expression of potentially any gene which one desires to have expressed in
     a plant. By including an enhancer with the ZMGRP promoter (such as an
     actin 1 intron or actin 2 intron) and a transcription
     al promoter (such as from a rice Rubisco gene), one may
     potentially increase the level of expression of coding regions operably
     linked to the ZMGRP promoter. Compns. comprising this sequence are
     described, as are plants transformed with such compns. Further provided
     are methods for the expression of transgenes in plants comprising the use
     of these sequences. The methods of the invention include the direct
     creation of transgenic plants with the ZMGRP promoter by genetic
     transformation, as well as by plant breeding methods. The sequences of
     the invention represent a valuable new tool for the creation of transgenic
     plants, preferably having one or more added beneficial characteristics.


=> dis his

     (FILE 'HOME' ENTERED AT 15:32:35 ON 18 MAR 2004)

     FILE 'AGRICOLA, CAPLUS, BIOSIS' ENTERED AT 15:32:52 ON 18 MAR 2004
L1           318 S ACT2 OR ACTIN2 OR ACTIN 2
L2            50 S L1 AND PROMOTER
L3            41 DUP REM L2 (9 DUPLICATES REMOVED)
L4             9 S RICE AND ACTIN 2
L5             9 DUP REM L4 (0 DUPLICATES REMOVED)

=> s compositae
L6         87375 COMPOSITAE

=> s l6 and transgenic
L7           318 L6 AND TRANSGENIC

=> s l7 and transformation
L8           128 L7 AND TRANSFORMATION

=> d ti

L8   ANSWER 1 OF 128  AGRICOLA  Compiled and distributed by the National
     Agricultural Library of the Department of Agriculture of the United States
     of America.  It contains copyrighted materials.  All rights reserved.
     (2004) on STN
```

TI Effect of selected monoamines on ethylene formation, growth and morphogenesis in thin cell layers and "hairy root" cultures.

=> d ab

L8 ANSWER 1 OF 128 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN

=> d 2 ti

L8 ANSWER 2 OF 128 CAPLUS COPYRIGHT 2004 ACS on STN
TI Methods of inhibiting apoptosis in plants using protease inhibitors, and their use in improving plant resistance to pathogens

=> d ab

L8 ANSWER 1 OF 128 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN

=> d 2 ab

L8 ANSWER 2 OF 128 CAPLUS COPYRIGHT 2004 ACS on STN
AB The invention provides two methods of inhibiting apoptosis in plants using caspase inhibitors. The methods can impart improved pathogen resistance to pathogens that exploit apoptosis as a part of the infection process. The first method involves exogenous administration via foliar spraying of the caspase inhibitor which is an amino blocked peptide with a reduced carboxy end (such as Ac-DEVD-CHO, Ac-YVAD-CHO, Ac-DMQD-CHO or Ac-DQMD-CHO). The invention provides a composition suitable for horticultural application which comprises the caspase peptide inhibitors mentioned above and a surfactant (such as a detergent). The second method of inhibiting apoptosis involves plant **transformation** using a baculovirus p35 protease inhibitor gene. The invention demonstrated the use of these methods and showed exogenous administration of caspase inhibitor peptides blocked the disease caused by Pseudomonas species and Xanthomonas campestris tomato in bean, tobacco and tomato plants. The invention also demonstrated that tomato plants transformed with Autographa californica nuclear polyhedrosis virus (AcMNPV) p35 protease inhibitor gene had increased resistance to Alternaria alternata lycopersici and Celletotrichum coccodes.

=> d 10 ti

L8 ANSWER 10 OF 128 CAPLUS COPYRIGHT 2004 ACS on STN
TI Viral disease-resistance of plants improved by **transformation** with potyvirus replicase gene

=> d 10 ab

L8 ANSWER 10 OF 128 CAPLUS COPYRIGHT 2004 ACS on STN
AB A DNA mol. is disclosed encoding a portion of a potyvirus replicase, said mol. being capable, upon introduction into an appropriate plant, of increasing the resistance of said plant to viral disease. Also disclosed is a method of increasing the resistance of a plant to virus disease, and

transgenic plants having increased resistance to virus disease. Thus, cDNA clones were prepared from potato virus Y (strain O) which encode methionine start codons in-frame with the NIb replicase gene (nucleotide 7472 in clone B4; nucleotide 7979 in clone C12) and continue through the coat protein gene and the 3'-untranslated region. The NIb portion of the cDNA clones were used for the construction of deletion mutation forms of the NIb replicase gene, so that a TAA stop codon was added to ensure that any polypeptide products produced from the deletion mutant constructs would terminate at the authentic end of the NIb sequence. The resulting plasmids were transformed into Agrobacterium strain LB4404 and transformed into the potato variety Maris Piper. **Transgenic** line 4.12 containing the C12 clone (small replicase form) was resistant to primary and secondary infection with potato virus Y.

```
=> s artichoke?
L9         5077 ARTICHOKE?

=> s l9 and (transgen? or transform?)
L10         142 L9 AND (TRANSGEN? OR TRANSFORM?)

=> s l10 and method
L11          23 L10 AND METHOD

=> dup rem l11
PROCESSING COMPLETED FOR L11
L12           23 DUP REM L11 (0 DUPLICATES REMOVED)

=> d 20-23 ti

L12  ANSWER 20 OF 23  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Fructosyltransferase gene expression construct in transgenic
     plants for production of oligosaccharides from sucrose and oligosaccharide
     use as sugar substitute

L12  ANSWER 21 OF 23  BIOSIS  COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI   Intracellular (PL) antibodies for virus immunotherapy in
     transgenic plants.

L12  ANSWER 22 OF 23  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Genetic transformation by Agrobacterium tumefaciens in the
     interspecific hybrid Helianthus annuus + Helianthus tuberosus

L12  ANSWER 23 OF 23  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Phenolic carboxylic acids of globe artichoke variety Maikopsky
     041


=> d 22 ag
'AG' IS NOT A VALID FORMAT
In a multifile environment, a format can only be used if it is valid
in at least one of the files.  Refer to file specific help messages
or the STNGUIDE file for information on formats available in
individual files.
REENTER DISPLAY FORMAT FOR ALL FILES (FILEDEFAULT):ab

L12  ANSWER 22 OF 23  CAPLUS  COPYRIGHT 2004 ACS on STN
AB   A genetic transformation method was developed in the
     interspecific hybrid Helianthus annuus + Helianthus tuberosus using
     Agrobacterium tumefaciens.  Leaf explants of a clone with an efficient
     tissue culture regeneration capacity were inoculated with A. tumefaciens
     carrying a disarmed Ti plasmid containing the cauliflower mosaic virus (CaMV)
     35S-GUS fusion gene with the nopaline synthase (NOS)-neomycin
     phosphotransferase II (NPT II) gene.  On selection medium containing 25 mg/L
```

of kanamycin, the inoculated leaf explants formed meristematic centers with buds and embryo-like structures that successively developed into putative **transformed** shoots, when transferred onto medium without growth regulators. Under suitable conditions, 3 days of cocultivation on medium containing BAP and NAA, the highest **transformation** frequency was 5.4%. Histochem. staining for the β-glucuronidase (GUS) activity provided evidence for **transformation** in different tissues and organs of **transgenic** plants. Integration of foreign DNA into genomic H. annuus + H. tuberosus DNA was demonstrated by Southern anal.

=> d 15-19 ti

L12 ANSWER 15 OF 23 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Construction of a flocculating yeast for fructose production from inulin.

L12 ANSWER 16 OF 23 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Nicotiana benthamiana plants **transformed** with the complete pre-readthrough domain or the N-proximal region of the replicase gene from cymbidium ringspot virus RNA are resistant to virus infection.

L12 ANSWER 17 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Regulated excision of a target gene from the **transformation** vector in the recipient cell using a site-specific recombinase

L12 ANSWER 18 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Collagen compound production in plants

L12 ANSWER 19 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI DNA sequences encoding carbohydrate polymer synthesizing enzymes and **method** for producing **transgenic** plants

=> d 18 ab

L12 ANSWER 18 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
AB A **method** of producing a collagen compound in **transgenic** plants is claimed. The compound is preferably procollagen or collagen or fragments thereof of human, animal or fish origin. The compound may be recovered from the plant as collagen or gelatin.

=> d 10-14 ti

L12 ANSWER 10 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI **Transgenic** plants comprising 1-SST and 1-FFT fructosyltransferase genes for a modified inulin production profile

L12 ANSWER 11 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI A highly concentrated mineralized natural complex for the integration of mineral oligoelements and **method** for its production

L12 ANSWER 12 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Raffinose synthetase genes and their gene sequences and cloning in plants

L12 ANSWER 13 OF 23 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI High level fructan accumulation in a **transgenic** sugar beet.

L12 ANSWER 14 OF 23 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Cloning of the fructan biosynthesis pathway of Jerusalem **artichoke**
.

=> d 5-9 ti

L12 ANSWER 5 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Optimisation of inulinase production by Kluyveromyces bulgaricus

L12 ANSWER 6 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI The fructan exohydrolase of chicory and a cDNA encoding it and the manipulation of fructan catabolism

L12 ANSWER 7 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Simultaneous overexpression of cyclin-dependent kinase and cyclin as **method** for enhancing plant growth

L12 ANSWER 8 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Plant genes encoding sulfate permease proteins

L12 ANSWER 9 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Improving stress tolerance in plants by blocking the stress-induced cell cycle arrest by mutation of a cyclin-dependent kinase gene

=> d 1-4 ti

L12 ANSWER 1 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Protein and cDNA sequence of plant proteins and enzymes and their uses in controlling phospholipase D expression in **transgenic** plants

L12 ANSWER 2 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI **Method** of increasing the **transgene**-coded biomolecule content in organisms by modulating expression of the ATP/ADP transporter

L12 ANSWER 3 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Modified Streptococcus gene ftf and fructosyltransferase and their use in preparation of inulin, fructooligosaccharides, and difructose dianhydride for use in food and feed

L12 ANSWER 4 OF 23 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Prevention of taurolithocholate-induced hepatic bile canalicular distortions by HPLC-characterized extracts of **artichoke** (Cynara scolymus) leaves.

=> d 4 ab

L12 ANSWER 4 OF 23 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AB The effects of water-soluble extracts of **artichoke** (Cynara scolymus L.) leaves on taurolithocholate-induced cholestatic bile canalicular membrane distortions were studied in primary cultured rat hepatocytes using electron microscopy. **Artichoke** extracts at concentrations between 0.08 and 0.5 mg/ml were able to prevent the formation of bizarre canalicular membrane **transformations** in a dose-dependent manner when added simultaneously with the bile acid. However, prevention also occurred when the hepatocytes were preincubated with the extracts, indicating that absorption of the bile acid to components of the extracts was not involved. These results demonstrate that **artichoke** leaf extracts exert a potent anticholestatic action at least in the case of taurolithocholate. This effect may contribute to the overall hepatoprotective influence of this herbal formulation.

=> s (cynara or scolymus) and (transgen? or transform?)
L13 33 (CYNARA OR SCOLYMUS) AND (TRANSGEN? OR TRANSFORM?)

=> dup rem l13
PROCESSING COMPLETED FOR L13
L14 24 DUP REM L13 (9 DUPLICATES REMOVED)

=> d 1-10 ti

L14 ANSWER 1 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
TI Brassica napus PERK (proline-rich extensin-like receptor kinase) and uses for increasing plant seed production

L14 ANSWER 2 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
TI Protein and cDNA sequences of a Arabidopsis thaliana abscisate monooxygenase ABACP

L14 ANSWER 3 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
TI Use of Arabidopsis thaliana tps1 gene encoding trehalose-6-phosphate synthase as selection markers for **transgenic** plants with improved stress resistance

L14 ANSWER 4 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
TI Modified Streptococcus gene ftf and fructosyltransferase and their use in preparation of inulin, fructooligosaccharides, and difructose dianhydride for use in food and feed

L14 ANSWER 5 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
TI Expression of fructose 1,6-bisphosphate aldolase from Escherichia coli in **transgenic** plants for improved crop yield and food properties

L14 ANSWER 6 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
TI Prevention of taurolithocholate-induced hepatic bile canalicular distortions by HPLC-characterized extracts of artichoke (**cynara scolymus**) leaves

L14 ANSWER 7 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
TI The fructan exohydrolase of chicory and a cDNA encoding it and the manipulation of fructan catabolism

L14 ANSWER 8 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
TI Simultaneous overexpression of cyclin-dependent kinase and cyclin as method for enhancing plant growth

L14 ANSWER 9 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
TI Improved starchy flours with modified protein content from **transgenic** root tuber species

L14 ANSWER 10 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
TI **Transgenic** plants expressing trehalose-6-phosphate synthase gene from regulated promoter

=> d 9 ab

L14 ANSWER 9 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AB The present invention is directed to a starchy flour comprising a modified protein content. The starchy flour is capable of producing a dough that, when compared with a corresponding wild-type starchy flour, comprises an increased pasting temperature, an increased peak viscosity, and more stability upon heating and cooling. Preferably the starchy flour is obtained from a root tuber species including potato, sweet potato, cassava, beet, yam, artichoke and turnip, or a combination thereof. This invention is also directed to a modified starchy flour prepared from maize. The modified starchy flour is obtained by **transforming** a plant with at least one gene construct that encodes a matrix protein. The matrix protein is preferably selected from the group consisting of glutenin, gliadin,

albumin, and globulin.

=> d 5 ab

L14 ANSWER 5 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AB Fructose-1,6-bisphosphate aldolase (FDA) is an enzyme reversibly catalyzing the reaction converting triosephosphate into fructose-1,6-bisphosphate. In the leaf, this enzyme is located in the chloroplast (starch synthesis) and the cytosol (sucrose biosynthesis). **Transgenic** plants were generated that express the E. coli fda gene in the chloroplast to improve plant yield by increasing leaf starch biosynthetic ability in particular and sucrose production in general. Leaves from plants expressing the fda **transgene** showed a significantly higher starch accumulation, as compared to control plants expressing the null vector, particularly early in the photoperiod, but had lower leaf sucrose. **Transgenic** plants also had a significantly higher root mass. Furthermore, **transgenic** potatoes expressing fda exhibited improved uniformity of solids. With respect to potatoes, the present invention provides (1) a higher quality, more uniform finish fry product in which french fries from all tuber regions, when processed, are nearly the same, (2) a higher through-put in the french fry processing plant due to lower processing times, and (3) processor cost savings due to lower energy input required for lower blanch, dry, and par-fry times.

=> d 11-20 ti

L14 ANSWER 11 OF 24 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 2
TI **Transgenic** potato (Solanum tuberosum) tubers synthesize the full spectrum of inulin molecules naturally occurring in globe artichoke (**Cynara scolymus**) roots.

L14 ANSWER 12 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
TI Improving stress tolerance in plants by blocking the stress-induced cell cycle arrest by mutation of a cyclin-dependent kinase gene

L14 ANSWER 13 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
TI A Na+/H+ exchanger protein of Arabidopsis and its in the development of salt tolerance in plants

L14 ANSWER 14 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
TI **Transgenic** plants overexpressing a phytochrome B **transgene** with increased photosynthetic capacity, delayed senescence, improved root ball formation, and increased yield

L14 ANSWER 15 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
TI A novel fructosyl transferase isolated from artichoke, and its use in the production of long-chain inulin

L14 ANSWER 16 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
TI A highly concentrated mineralized natural complex for the integration of mineral oligoelements and method for its production

L14 ANSWER 17 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
TI Expression of fructose 1,6 bisphosphate aldolase in **transgenic** plants for improved crops with better solids uniformity by improving carbon availability

L14 ANSWER 18 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
TI Artichoke fructosyl polymerase cDNA, recombinant plant cells and plants

expressing this cDNA, and preparation of short-chain fructosyl polymers for use in food

L14 ANSWER 19 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
TI Collagen compound production in plants

L14 ANSWER 20 OF 24 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 3
TI **Transgenic** potato tubers accumulate high levels of 1-kestose and nystose: functional identification of a sucrose sucrose 1-fructosyltransferase of artichoke (**Cynara scolymus**) blossom discs.

=> d 15 ab

L14 ANSWER 15 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AB The invention provides cDNA and protein sequences of a novel fructosyl transferase (FFT), which was isolated from artichoke (**Cynara scolymus**). Since most inulin occurring naturally in plants is short-chain fructan, previous methods for producing long-chain fructan polysaccharides in plants have centered on the expression of bacterial (Streptococcus mutans) fructosyl transferases. This invention provides expression vectors containing the disclosed gene which allow for the production of long-chain inulin (preferably having between 32 and 100 fructosyl residues) in various host organisms, including plants, in economically important amts.

=> d 21-24 ti

L14 ANSWER 21 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4
TI In vitro organogenesis and **transgenosis** aspects in globe artichoke (**Cynara scolymus** L.)

L14 ANSWER 22 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
TI Guaianolide from Amberboa divericata

L14 ANSWER 23 OF 24 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 5
TI Sesquiterpene lactones from **Cynara** humilis.

L14 ANSWER 24 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 6
TI Effects of agar brand and concentration on the tissue culture medium

=> s sunflower and transgenic
L15 812 SUNFLOWER AND TRANSGENIC

=> s l15 and method
L16 221 L15 AND METHOD

=> del l16 y

=> s l15 and (sunflower or helianthus) 9ti0
MISSING OPERATOR LIANTHUS) 9TI0
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=> s l15 and (sunflower or helianthus) (ti)
MISSING OPERATOR LIANTHUS) (TI
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nested terms that are not separated by a logical operator.

=> s l15 and (sunflower or helianthus) (ti)
MISSING OPERATOR LIANTHUS) (TI
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nested terms that are not separated by a logical operator.

=> s l15 and (sunflower or helianthus) ti
MISSING OPERATOR LIANTHUS) TI
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> d 810-812 ti

L15 ANSWER 810 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI A **SUNFLOWER** HELIANTHININ GENE UPSTREAM SEQUENCE ENSEMBLE
CONTAINS AN ENHANCER AND SITES OF NUCLEAR PROTEIN INTERACTION.

L15 ANSWER 811 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI REGULATORY DOMAINS OF THE GMHSP17.5-E HEAT SHOCK PROMOTER OF SOYBEAN.

L15 ANSWER 812 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI THE EXPRESSION OF HEAT-SHOCK GENES IN HIGHER PLANTS.

=> d 801-809 ti

L15 ANSWER 801 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Gene flow between cultivated and wild sunflowers.

L15 ANSWER 802 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Developmental and hormonal regulation of **sunflower** helianthinin
genes: Proximal promoter sequences confer regionalized seed expression.

L15 ANSWER 803 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Genetic engineering of grain and pasture legumes for improved nutritive
value.

L15 ANSWER 804 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Targeting of castor bean glyoxysomal isocitrate lyase to tobacco leaf
peroxisomes.

L15 ANSWER 805 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI **Transgenic** oilseeds and vegetables.

L15 ANSWER 806 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI RESISTANCE TO BACILLUS-THURINGIENSIS-SSP-KURSTAKI IN THE **SUNFLOWER**
MOTH LEPIDOPTERA PYRALIDAE.

L15 ANSWER 807 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI CELL CYCLE-REGULATED GENE EXPRESSION IN **TRANSGENIC** PLANT CELLS.

L15 ANSWER 808 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI VACUOLAR TARGETING AND POSTTRANSLATIONAL PROCESSING OF THE PRECURSOR TO
THE SWEET POTATO TUBEROUS ROOT STORAGE PROTEIN IN HETEROLOGOUS PLANT
CELLS.

L15 ANSWER 809 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI DEVELOPMENTALLY REGULATED EXPRESSION OF A **SUNFLOWER** 11S SEED
PROTEIN GENE IN **TRANSGENIC** TOBACCO.

=> d 805 ab

L15 ANSWER 805 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

=> d 805 ti

L15 ANSWER 805 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI **Transgenic** oilseeds and vegetables.

=> d 805 so

L15 ANSWER 805 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
SO (see Book Title). (1993) pp. 103-127. Kung, S.-D. and R. Wu (Ed.).
Transgenic plants, Vol. 2. Present status and social and economic impacts.
xxxi+265p. Academic Press, Inc.: San Diego, California, USA; London,
England, UK. Illus. ISBN 0-12-428782-4.
Publisher: (see Book Title).
ISBN: 0-12-428782-4.

=> d 701-800 ti

L15 ANSWER 701 OF 812 CAPLUS COPYRIGHT 2004 ACS on STN
TI **Transgenic** expression of the alcohol dehydrogenase-1 gene of
maize in **sunflower**

L15 ANSWER 702 OF 812 CAPLUS COPYRIGHT 2004 ACS on STN
TI Molecular cloning and use of benzenesulfonamide-inducible plant promoters

L15 ANSWER 703 OF 812 CAPLUS COPYRIGHT 2004 ACS on STN
TI Cell cycle-regulated gene expression in **transgenic** plant cells

L15 ANSWER 704 OF 812 CAPLUS COPYRIGHT 2004 ACS on STN
TI cDNA cloning of genes for pathogenesis-related proteins for the
preparation of **transgenic** disease-resistant plants

L15 ANSWER 705 OF 812 CAPLUS COPYRIGHT 2004 ACS on STN
TI Improvement of heterologous gene expression in plants by decreasing number
of polyadenylation signals

L15 ANSWER 706 OF 812 CAPLUS COPYRIGHT 2004 ACS on STN
TI Fungal pathogen-tolerant **transgenic** plants expressing high
levels of chitinase

L15 ANSWER 707 OF 812 CAPLUS COPYRIGHT 2004 ACS on STN
TI **Transgenic** plants resistant to sulfonyl urea herbicides

L15 ANSWER 708 OF 812 CAPLUS COPYRIGHT 2004 ACS on STN
TI Chemically regulatable plant genes and their uses

L15 ANSWER 709 OF 812 CAPLUS COPYRIGHT 2004 ACS on STN
TI Vacuolar targeting and posttranslational processing of the precursor to
the sweet potato tuberous root storage protein in heterologous plant cells

L15 ANSWER 710 OF 812 CAPLUS COPYRIGHT 2004 ACS on STN
TI Overexpression of phytochrome in **transgenic** plants

L15 ANSWER 711 OF 812 CAPLUS COPYRIGHT 2004 ACS on STN
TI Developmentally regulated expression of a **sunflower** 11S seed
protein gene in **transgenic** tobacco

L15 ANSWER 712 OF 812 CAPLUS COPYRIGHT 2004 ACS on STN
TI Method for transforming plants via shoot apices derived from seedlings or axillary buds

L15 ANSWER 713 OF 812 CAPLUS COPYRIGHT 2004 ACS on STN
TI Production of male-sterile plants and seeds by recombinant DNA methods

L15 ANSWER 714 OF 812 CAPLUS COPYRIGHT 2004 ACS on STN
TI **Transgenic** tobacco plants with modified physiology and morphology, due to expression of agrobacterium or plasmid genes

L15 ANSWER 715 OF 812 CAPLUS COPYRIGHT 2004 ACS on STN
TI Method for the production of **transgenic** plants

L15 ANSWER 716 OF 812 CAPLUS COPYRIGHT 2004 ACS on STN
TI Plants genetically enhanced for disease-resistance or enhanced nutritional quality

L15 ANSWER 717 OF 812 CAPLUS COPYRIGHT 2004 ACS on STN
TI A **sunflower** helianthinin gene upstream sequence ensemble contains an enhancer and sites of nuclear protein interaction

L15 ANSWER 718 OF 812 CAPLUS COPYRIGHT 2004 ACS on STN
TI Genetic engineering of **sunflower** (Helianthus annuus L.)

L15 ANSWER 719 OF 812 CAPLUS COPYRIGHT 2004 ACS on STN
TI Regulatory domains of the Gmhsp17.5-E heat shock promoter of soybean

L15 ANSWER 720 OF 812 CAPLUS COPYRIGHT 2004 ACS on STN
TI Heat stress: expression and structure of heat shock protein genes

L15 ANSWER 721 OF 812 CAPLUS COPYRIGHT 2004 ACS on STN
TI The expression of heat-shock genes in higher plants

L15 ANSWER 722 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI A B. t. transgene reduces herbivory and enhances fecundity in wild sunflowers.

L15 ANSWER 723 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Genetic transformation in commercial Tasmanian cultivars of opium poppy, Papaver somniferum, and movement of transgenicpollen in the field.

L15 ANSWER 724 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Expression of a plant cystatin confers partial resistance to Globodera, full resistance is achieved by pyramiding a cystatin with natural resistance.

L15 ANSWER 725 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Analysis of microsatellites in major crops assessed by computational and experimental approaches.

L15 ANSWER 726 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Overexpression of a gene encoding hydrogen peroxide-generating oxalate oxidase evokes defense responses in **sunflower**.

L15 ANSWER 727 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI **Transgenic sunflower**: PEG-mediated gene transfer.

L15 ANSWER 728 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI **Transgenic** mustard.

L15 ANSWER 729 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Recombinant plant expression vector comprising isolated cDNA nucleotide sequence encoding farnesyl pyrophosphate synthase (FPS) derived from

seedlings of **sunflower** (Helianthus annus).

L15 ANSWER 730 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Manipulating ribulose bisphosphate carboxylase/oxygenase in the chloroplasts of higher plants.

L15 ANSWER 731 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Gene flow from **transgenic** crops to wild relatives: When is it a problem?.

L15 ANSWER 732 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Fungal responsive fatty acid acetylenases occur widely in evolutionarily distant plant families.

L15 ANSWER 733 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Fitness effects of **transgenic** disease resistance in sunflowers.

L15 ANSWER 734 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Super sunflowers: Stopping the rot?.

L15 ANSWER 735 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Synthetic promoters.

L15 ANSWER 736 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI The redistribution of protein sulfur in **transgenic** rice expressing a gene for a foreign, sulfur-rich protein.

L15 ANSWER 737 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Improved Agrobacterium-mediated transformation of **sunflower** (Helianthus annuus L.): Assessment of macerating enzymes and sonication.

L15 ANSWER 738 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Plant genes and uses thereof.

L15 ANSWER 739 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Fecundity selection in a **sunflower** crop-wild study: Can ecological data predict crop allele changes?.

L15 ANSWER 740 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI A seed-specific heat-shock transcription factor involved in developmental regulation during embryogenesis in **sunflower**.

L15 ANSWER 741 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Transient expression of ipt gene enhances regeneration and transformation rates of **sunflower** shoot apices (Helianthus annuus L.).

L15 ANSWER 742 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Moving beyond 'industry vs ecologists' stereotype.

L15 ANSWER 743 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Effects of a Bt transgene on herbivory and fecundity in BC1 wild **sunflower** (Helianthus annuus).

L15 ANSWER 744 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI In planta strategy for gene transfer into plants: Embryo transformation.

L15 ANSWER 745 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Mechanistic studies on the prevention of intestinal and colon cancer by milk nutrients.

L15 ANSWER 746 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI MADS-box genes involved in inflorescence development in Asteraceae.

L15 ANSWER 747 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

TI Potential gene flow from cultivated **sunflower** to volunteer, wild Helianthus species in Europe.

L15 ANSWER 748 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Modification of **sunflower** oil quality by seed-specific expression of a heterologous DELTA9-stearoyl-(acyl carrier protein) desaturase gene.

L15 ANSWER 749 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Reversible heat-induced inactivation of chimeric beta-glucuronidase in **transgenic** plants.

L15 ANSWER 750 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI High oleic/high stearic **sunflower** oils.

L15 ANSWER 751 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Agrobacterium rhizogenes induced rooting of in vitro regenerated shoots of the hybrid Helianthus annuusXHelianthus tuberosus.

L15 ANSWER 752 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Challenges and opportunities for enhancing crop disease resistance and food safety via transgene technology.

L15 ANSWER 753 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Agrobacterium-mediated transformation of Vicia faba.

L15 ANSWER 754 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Protein engineering of novel proteinase inhibitors and their effects on the growth of Spodoptera exigua larvae.

L15 ANSWER 755 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Promoters for pregenomic RNA of banana streak badnavirus are active for transgene expression in monocot and dicot plants.

L15 ANSWER 756 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Inbred **sunflower** line D116A.

L15 ANSWER 757 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Inbred **sunflower** line PHA305.

L15 ANSWER 758 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Inbred **sunflower** line PHA283.

L15 ANSWER 759 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Phytomelanin in Compositae.

L15 ANSWER 760 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Glufosinate combinations and row spacing for weed control in glufosinate-resistant corn (Zea mays).

L15 ANSWER 761 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Recent advances in the biocontrol of Orobanche (broomrape) species.

L15 ANSWER 762 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Cytogenetic analysis of interspecific **sunflower** hybrids and molecular evaluation of their progeny.

L15 ANSWER 763 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Inbred **sunflower** line C9607CM.

L15 ANSWER 764 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Inbred **sunflower** line PHA344.

L15 ANSWER 765 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

TI Expression of a sulphur-rich **sunflower** albumin gene in **transgenic** tall fescue (Festuca arundinacea Schreb.) plants.

L15 ANSWER 766 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Inverted-repeat DNA: A new gene-silencing tool for seed lipid modification.

L15 ANSWER 767 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Increased efficiency of wool growth and live weight gain in Merino sheep fed **transgenic** lupin seed containing **sunflower** albumin.

L15 ANSWER 768 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Production of stable **transgenic** sunflowers (Helianthus annuus L.) from wounded immature embryos by particle bombardment and co-cultivation with Agrobacterium tumefaciens.

L15 ANSWER 769 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Characterization and molecular analysis of **transgenic** plants obtained by microprotoplast fusion in **sunflower**.

L15 ANSWER 770 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Synthetic promoters.

L15 ANSWER 771 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI **Transgenic** Trifolium repens with foliage accumulating the high sulphur protein, **sunflower** seed albumin.

L15 ANSWER 772 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI The targeting and accumulation of ectopically expressed oleosin in non-seed tissues of Arabidopsis thaliana.

L15 ANSWER 773 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Transient beta-gus and gfp gene expression and viability analysis of microprojectile bombarded microspores of Brassica napus L.

L15 ANSWER 774 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Transcriptional activation of a heat shock gene promoter in **sunflower** embryos: Synergism between ABI3 and heat shock factors.

L15 ANSWER 775 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Environmentally friendly approaches to genetic engineering.

L15 ANSWER 776 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI An imperfect heat shock element and different upstream sequences are required for the seed-specific expression of a small heat shock protein gene.

L15 ANSWER 777 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Pinus pinaster oil affects lipoprotein metabolism in apolipoprotein E-deficient mice.

L15 ANSWER 778 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Pectolytic enzyme treatment of **sunflower** explants prior to wounding and cocultivation with Agrobacterium tumefaciens, enhances efficiency of transient beta-glucuronidase expression.

L15 ANSWER 779 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Chimeric plant genes based on upstream regulatory elements of helianthinin.

L15 ANSWER 780 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI A promoter from sugarcane bacilliform badnavirus drives transgene expression in banana and other

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L15 ANSWER 781 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Agrobacterium-mediated transformation of **sunflower** (Helianthus annuus L.): A simple protocol.

L15 ANSWER 782 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Genetic engineering for high methionine grain legumes.

L15 ANSWER 783 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Expression of **sunflower** homeodomain containing proteins in Escherichia coli: Purification and functional studies.

L15 ANSWER 784 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Modifying the sulphur amino acid content of protein in **transgenic** legumes.

L15 ANSWER 785 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Dual regulation of a heat shock promoter during embryogenesis: Stage-dependent role of heat shock elements.

L15 ANSWER 786 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Generation of **transgenic** asulam-resistant potatoes to facilitate eradication of parasitic broomrapes (Orobanche spp.), with the sul gene as the selectable marker.

L15 ANSWER 787 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Quantum yields and rate constants of photochemical and nonphotochemical excitation quenching.

L15 ANSWER 788 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI The persistence of cultivar alleles in wild populations of sunflowers five generations after hybridization.

L15 ANSWER 789 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Gene transfer by particle bombardment to Norway spruce and Scots pine pollen.

L15 ANSWER 790 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Enhanced methionine levels and increased nutritive value of seeds of **transgenic** lupins (Lupinus angustifolius L.) expressing a **sunflower** seed albumin gene.

L15 ANSWER 791 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Expression and localization of the pollen-specific LIM domain protein PLIM-1 from **sunflower**.

L15 ANSWER 792 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Importance of the chiral centers of jasmonic acid in the responses of plants.

L15 ANSWER 793 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Agrobacterium-mediated transformation of **sunflower** (Helianthus annuus L.) shoot apices: Transformation patterns.

L15 ANSWER 794 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Differential regulation of small heat-shock genes in plants: Analysis of a water-stress-inducible and developmentally activated **sunflower** promoter.

L15 ANSWER 795 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Accumulation of a sulphur-rich seed albumin from **sunflower** in the leaves of **transgenic** subterranean clover (Trifolium

subterraneum L.).

L15 ANSWER 796 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Expression of foreign genes in **sunflower** (Helianthus annuus L.): Evaluation of three gene transfer methods.

L15 ANSWER 797 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI A biotechnological approach to improving the nutritive value of alfalfa.

L15 ANSWER 798 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Proximal promoter sequences of **sunflower** helianthinin genes confer regionalized seed-specific expression.

L15 ANSWER 799 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Transformation of **sunflower** (Helianthus annuus L.) following wounding with glass beads.

L15 ANSWER 800 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Transformation of **sunflower** (Helianthus annuus L.): A reliable protocol.

=>
=> d 800 so

L15 ANSWER 800 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
SO Plant Cell Reports, (1994) Vol. 14, No. 2-3, pp. 81-86.
CODEN: PCRPD8. ISSN: 0721-7714.

=> d 800 ab

L15 ANSWER 800 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AB A reliable protocol for the transformation of cultivated **sunflower** (Helianthus annuus L.) has been established, based on microprojectile bombardment of half shoot apices in combination with Agrobacterium tumefaciens coculture. **Transgenic** shoots have been obtained from 5 inbred lines, although transformation efficiencies varied with the genotype. Plants expressing the transgenes could be recovered from up to 7% of the explants. A minority of plants was shown to be chimeric for expression of beta-glucuronidase activity while most appeared to be uniformly transformed. Genetic segregation was 3:1 for both beta-glucuronidase and neomycin phospho transferase in some plants, indicating that the respective mother plants were uniformly transformed. Integration of the foreign genes was also shown by Southern analysis.

=> d 799 ab

L15 ANSWER 799 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AB A procedure was developed for transformation of Helianthus annuus (**sunflower**) using Agrobacterium tumefaciens. Cotyledons were removed from young seedlings, and the remaining tissue was uniformly wounded by shaking with glass beads. The wounded tissue was then co-cultivated with a hypervirulent strain of Agrobacterium tumefaciens harboring the binary plasmid pCNL56. Minimal use of defined medium was required, and no callus was observed. The polymerase chain reaction (PCR) followed by DNA hybridization demonstrated the presence of gusA DNA from pCNL56 in total leaf DNA of 6 primary transformants and 2 progeny plants. No Agrobacterium DNA was detected in total DNA from transformed **sunflower** leaves that was amplified with primers specific to the miaA chromosomal gene of Agrobacterium. Foreign DNA was also detected in the next generation. beta-Glucuronidase (GUS) activity was demonstrated for 5 of the T-2 **transgenic** plants. Grafting was used to

increase the number of seeds present on plants that had undergone tissue culture manipulations.

=> d 799 so

L15 ANSWER 799 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
SO Plant Cell Reports, (1995) Vol. 14, No. 5, pp. 285-289.
CODEN: PCRPD8. ISSN: 0721-7714.

=> d 796 so

L15 ANSWER 796 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
SO Euphytica, (1995) Vol. 85, No. 1-3, pp. 63-74.
CODEN: EUPHAA. ISSN: 0014-2336.

=> d 796 ab

L15 ANSWER 796 OF 812 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AB Suitable **sunflower** tissues and cells were transformed either by direct gene transfer into protoplasts, particle bombardment, or Agrobacteriurn co-culture. While all techniques allowed efficient short-term or transient expression of the introduced gene(s) in the respective tissues, stable transformation was only observed after transformation with Agrobacterium. The latter technique was suitable for the production of **transgenic** callus from seedling cotyledons and occasional shoots with chimaeric expression of the transgene. Detailed analysis of the interaction of Agrobacterium with this explant showed that infection efficiency was critically dependent on the co-culture conditions, and that the preferentially-transformed cells were not the ones competent for regeneration.

=> s compositae and review
L16 890 COMPOSITAE AND REVIEW

=> s l16 and (transgenic or transform?)
L17 18 L16 AND (TRANSGENIC OR TRANSFORM?)

=> dup rem l17
PROCESSING COMPLETED FOR L17
L18 18 DUP REM L17 (0 DUPLICATES REMOVED)

=> d 1-10 ti

L18 ANSWER 1 OF 18 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI In planta strategy for gene transfer into plants: Embryo **transformation**.

L18 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
TI Phytomelanin in **compositae**

L18 ANSWER 3 OF 18 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Morphological and anatomical structure of the achenes of the genus Hieracium (Asteraceae) and related genera.

L18 ANSWER 4 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
TI Natural product research in Taiwan. IV

L18 ANSWER 5 OF 18 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Glyphosate-tolerant crops: Genes and enzymes.

L18 ANSWER 6 OF 18 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Recent trends in the biotechnology of Chrysanthemum: A critical **review**.

L18 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
TI Exploration of air-pollutant-philic plants for renovation of global environment

L18 ANSWER 8 OF 18 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI The gene for pyruvate, orthophosphate dikinase in C4 plants: Structure, regulation and evolution.

L18 ANSWER 9 OF 18 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Genetic engineering of grain and pasture legumes for improved nutritive value.

L18 ANSWER 10 OF 18 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Structure and morphological interpretation of an involucre in inflorescences of some Dicotyledonae.

=> d ab

L18 ANSWER 1 OF 18 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AB Tissue culture-plant regeneration has been an indispensable and integral part of **transgenic** technology. Nevertheless, realization of whole plant **transformants** has been a problem in a large number of crop species as these plants have proven to be highly recalcitrant in vitro. Consequently, strategies are being evolved wherein the tissue culture component is eliminated in the procedure. These are mostly in planta methods. This **review** presents one such in planta method demonstrated to **transform** three important recalcitrant crops viz., sunflower, safflower and peanut. The method essentially involves infection of embryos (young seedlings) with Agrobacterium and allowing the seedling to grow into a mature plant. The T0 and T1 generation plants are later subjected to analysis for the presence of transgenes. This method is not only tissue culture-independent but also is genotype-independent and permits screening of a large number of **transformants** in a short span of time. Tissue culture-induced variations are also avoided. The utilization of the strategy reported may help future efforts in designing **transformation** procedures for other difficult-to-regenerate plant species.

=> d so

L18 ANSWER 1 OF 18 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
SO Physiology and Molecular Biology of Plants, (June, 2002) Vol. 8, No. 2, pp. 161-169. print.
ISSN: 0971-5894.

=> d 11-18 ti

L18 ANSWER 11 OF 18 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI MOLECULAR CHARACTERIZATION OF GENE-FOR-GENE SYSTEMS IN PLANT-FUNGUS INTERACTIONS AND THE APPLICATION OF AVIRULENCE GENES IN CONTROL OF PLANT PATHOGENS.

L18 ANSWER 12 OF 18 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Biotechnology of sunflower (Helianthus annuus L.): **Review**.

L18 ANSWER 13 OF 18 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Implications of research into application of mineral fertilizers and

manure on pyrethrin production: A **review**.

L18 ANSWER 14 OF 18 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI RECENT PROGRESS AND PROSPECTS OF BIOTECHNOLOGY IN SUNFLOWER BREEDING.

L18 ANSWER 15 OF 18 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI PLANT TISSUE CULTURE IN BIOTECHNOLOGY.

L18 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
TI Secondary metabolites from Viguiera (**Compositae**, Heliantheae). Chemistry and chemotaxonomic implications

L18 ANSWER 17 OF 18 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI ISOTOPE TECHNOLOGY IN BIOLOGICAL AND AGRICULTURAL RESEARCH.

L18 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
TI Biogenesis of sesquiterpene lactones of the **Compositae**

=> s oxox
L19 7 OXOX

=> dup rem l19
PROCESSING COMPLETED FOR L19
L20 6 DUP REM L19 (1 DUPLICATE REMOVED)

=> d 1-6 ti

L20 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
TI Theoretical Study of the Low Lying Electronic States of **oxoX** (salen) (X = Mn, Mn-, Fe, and Cr-) Complexes

L20 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
TI Fitness effects of transgenic disease resistance in sunflowers

L20 ANSWER 3 OF 6 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Super sunflowers: Stopping the rot?.

L20 ANSWER 4 OF 6 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Five new taraxastane-type triterpenes from the aerial roots of Ficus microcarpa.

L20 ANSWER 5 OF 6 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Effect of Brassica oxyrrhina cytoplasm on Raphanus sativus.

L20 ANSWER 6 OF 6 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI INDUCTION OF THE SECOND EXOPOLYSACCHARIDE EPSB IN RHIZOBIUM-MELILOTI SU47 BY LOW PHOSPHATE CONCENTRATIONS.

=> d 2 ab

L20 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
AB Attempts to breed white mold (Sclerotinia sclerotiorum) resistance in plants has met with little success, and chemical control methods are costly and often ineffective. Therefore, attention has turned to genetic modification. Here, the fitness effects of a transgene conferring resistance to white mold in sunflower (Helianthus annuus) was examined An oxalate oxidase transgene was used to enhance white mold resistance in cultivated sunflower.

=> d 2 so

L20 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
SO Science (Washington, DC, United States) (2003), 300(5623), 1250
CODEN: SCIEAS; ISSN: 0036-8075

=> d 2 au

L20 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
AU Burke, John M.; Rieseberg, Loren H.

=> d 3 so

L20 ANSWER 3 OF 6 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
SO Science (Washington D C), (23 May 2003) Vol. 300, No. 5623, pp. 1243-1244. print.
ISSN: 0036-8075 (ISSN print).

=> d 4 so

L20 ANSWER 4 OF 6 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
SO Chemical and Pharmaceutical Bulletin (Tokyo), (April, 1999) Vol. 47, No. 4, pp. 498-500. print.
CODEN: CPBTAL. ISSN: 0009-2363.

=> d 4 ab

L20 ANSWER 4 OF 6 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AB Five new taraxastane-type triterpenes, 22-oxo-20-taraxasten-3beta-ol (1), 20(30)-taraxastene-3beta,21alpha-diol (2), 20alpha,21alpha-epoxytaraxastan-3beta-ol (3), 20-taraxastene-3beta,22beta-diol (4), and 3beta-acetoxy-20-taraxasten-22-one (5), together with 20-taraxasten-3beta-ol (6) and ptiloepoxide (7) were isolated from the aerial roots of Ficus microcarpa. Their structures were elucidated by spectroscopic and chemical methods.

=> s oxalate oxidase
L21 606 OXALATE OXIDASE

=> s l21 and transgenic
L22 73 L21 AND TRANSGENIC

=> d 70-73 ti

L22 ANSWER 70 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Regulated expression of a wheat germin gene in tobacco: **oxalate oxidase** activity and apoplastic localization of the heterologous protein.

L22 ANSWER 71 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Degradation of oxalic acid by **transgenic** oilseed rape plants expressing **oxalate oxidase**.

L22 ANSWER 72 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI The characterisation of **oxalate oxidase** isolated from **transgenic** Brassica napus.

L22 ANSWER 73 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Degradation of oxalic acid by **transgenic** canola plants expressing **oxalate oxidase**.

=> d 73 so

L22 ANSWER 73 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
SO Journal of Experimental Botany, (1994) Vol. 45, No. SUPPL., pp. 25.
Meeting Info.: Annual Meeting of the Society for Experimental Biology.
Swansea, Wales, UK. April 11-15, 1994.
CODEN: JEBOA6. ISSN: 0022-0957.

=> d 73 ab

L22 ANSWER 73 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

=> d 71 ab

L22 ANSWER 71 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AB Oxalic acid is thought to have a primary role in the pathogenicity of several plant pathogens notably Sclerotinia sclerotiorum. A gene coding for the enzyme **oxalate oxidase** was isolated from barley roots and introduced into oilseed rape as a means of degrading oxalic acid in vivo. This report describes the production of several **transgenic** plants of oilseed rape and the characterisation of these plants by Southern, Western and enzyme activity assays. Plants were shown to contain an active **oxalate oxidase** enzyme and were tolerant of exogenously supplied oxalic acid.

=> d 70 ab

L22 ANSWER 70 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AB Wheat (Triticum aestivum) germin is a homopentameric glycoprotein whose synthesis is allied with seed germination. Germin pentamers show an unusual resistance to dissociation and possess an **oxalate oxidase** (OxO) activity. In order to increase our knowledge of germin gene expression, the function(s) of germin during development and possible uses in plant genetic engineering, an in vivo expression system is required. To this end, a gene for germin, named gf-2.8, was studied by expressing either promoter-GUS fusions or the intact gene in **transgenic** tobacco (Nicotiana tabacum) plants. Heterologous gene transcription was monitored in vitro and in vivo by GUS or OxO activity and was found to occur in developing seeds and in seedlings. This transcription was stimulated by auxins, as would be expected because of the presence of putative auxin-responsive elements in the promoter of the gf-2.8 gene. Auxin stimulation also extended to young leaves since OxO activity could be detected in treated but not in untreated leaves. The biochemical characteristics of wheat germin were also conserved in a **transgenic** host: the OxO activity was present under the form of a doublet co-migrating with germin G and G' isoforms. Also, germin distributed between a soluble and an apoplastic fractions despite the fact that wheat cell wall substantially differs from tobacco cell wall. Therefore, tobacco constitutes a suitable host for in vivo studies of this monocotyledon gene.

=> d 65-69 ti

L22 ANSWER 65 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI The role of **oxalate oxidase** and other germins in stress tolerance of **transgenic** plants.

L22 ANSWER 66 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Regulation by biotic and abiotic stress of a wheat germin gene encoding

oxalate oxidase, a H2O2-producing enzyme.

L22 ANSWER 67 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Barley **oxalate oxidase** is a hexameric protein related to seed storage proteins: Evidence from X-ray crystallography.

L22 ANSWER 68 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Gene expression and **oxalate oxidase** activity of two germin isoforms induced by stress.

L22 ANSWER 69 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Expression of **oxalate oxidase** in **transgenic** plants provides resistance to oxalic acid and oxalate-producing fungi.

=> d 69 ab

L22 ANSWER 69 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

=> d 69 so

L22 ANSWER 69 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
SO Plant Physiology (Rockville), (1997) Vol. 114, No. 3 SUPPL., pp. 227.
Meeting Info.: PLANT BIOLOGY '97: 1997 Annual Meetings of the American Society of Plant Physiologists and the Canadian Society of Plant Physiologists, Japanese Society of Plant Physiologists and the Australian Society of Plant Physiologists. Vancouver, British Columbia, Canada. August 2-6, 1997.
CODEN: PLPHAY. ISSN: 0032-0889.

=> d 68 so

L22 ANSWER 68 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
SO Acta Physiologiae Plantarum, (1998) Vol. 20, No. 1, pp. 19-33. print.
CODEN: APPLDE. ISSN: 0137-5881.

=> d 65 so

L22 ANSWER 65 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
SO Journal of Experimental Botany, (May, 1999) Vol. 50, No. SUPPL., pp. 60. print.
Meeting Info.: Annual Meeting of the Society for Experimental Biology. Edinburgh, Scotland. March 22-26, 1999. Society for Experimental Biology.
CODEN: JEBOA6. ISSN: 0022-0957.

=> d 66 ab

L22 ANSWER 66 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AB Germins and germin-like proteins (GLPs) constitute a ubiquitous family of plant proteins that seem to be involved in many developmental and stress-related processes. Wheat germin has been extensively studied at the biochemical level: it is found in the apoplast and the cytoplasm of germinating embryo cells and it has **oxalate oxidase** activity (EC 1.2.3.4). Germin synthesis can also be induced in adult wheat leaves by auxins and by a fungal pathogen but it remains to be determined whether the same gene is involved in developmental, hormonal and stress response. In this work, we have studied the expression of one of the wheat germin genes, named gf-2.8, in wheat as well as in **transgenic** tobacco plants transformed with either this intact gene or constructs with GUS driven by its promoter. This has allowed us to

demonstrate that expression of this single gene is both developmentally and pathogen-regulated. In addition, we show that expression of the wheat gf-2.8 germin gene is also stimulated by some abiotic stresses, especially the heavy metal ions Cd2+, Cu2+ and Co2+. Several chemicals involved in stress signal transduction pathways were also tested: only polyamines were shown to stimulate expression of this gene. Because regulation of the wheat gf-2.8 germin gene is complex and because its product results in developmental and stress-related release of hydrogen peroxide in the apoplast, it is likely that it plays an important role in several aspects of plant growth and defence mechanisms.

=> d 61-64 ti

L22 ANSWER 61 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Synthetic promoters.

L22 ANSWER 62 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Functional characterization of seed coat-specific members of the barley germin gene family.

L22 ANSWER 63 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Arabidopsis thaliana germin-like proteins: Common and specific features point to a variety of functions.

L22 ANSWER 64 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Agrobacterium-mediated transformation of hybrid poplar with oxalate oxidate gene and the resistance of **transgenic** plants to oxalic acid and pathogenic fungi.

=> d 64 so

L22 ANSWER 64 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
SO Phytopathology, (June, 1999) Vol. 89, No. 6 SUPPL., pp. S45-S46. print.
Meeting Info.: Annual Meeting of the American Phytopathological Society. Montreal, Quebec, Canada. August 7-11, 1999. American Phytopathological Society.
CODEN: PHYTAJ. ISSN: 0031-949X.

=> d 50-60 ti

L22 ANSWER 50 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Overexpression of a gene encoding hydrogen peroxide-generating **oxalate oxidase** evokes defense responses in sunflower.

L22 ANSWER 51 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Expression of a putative self-processing, pathogen-resistant gene construct in Arabidopsis.

L22 ANSWER 52 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Fitness effects of **transgenic** disease resistance in sunflowers.

L22 ANSWER 53 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Super sunflowers: Stopping the rot?.

L22 ANSWER 54 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Synthetic promoters.

L22 ANSWER 55 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Partial resistance to white mold in a **transgenic** soybean line.

L22 ANSWER 56 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

TI Reduced herbivory of the European corn borer (Ostrinia nubilalis) on corn transformed with germin, a wheat **oxalate oxidase** gene.

L22 ANSWER 57 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Soybean plants expressing an active oligomeric **oxalate oxidase** from the wheat gf-2.8 (germin) gene are resistant to the oxalate-secreting pathogen sclerotina sclerotiorum.

L22 ANSWER 58 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Challenges and opportunities for enhancing crop disease resistance and food safety via transgene technology.

L22 ANSWER 59 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Increased Septoria musiva resistance in **transgenic** hybrid poplar leaves expressing a wheat **oxalate oxidase** gene.

L22 ANSWER 60 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Germin gene expression induced by stress.

=> d 50 so

L22 ANSWER 50 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
SO Plant Physiology (Rockville), (September 2003) Vol. 133, No. 1, pp. 170-181. print.
ISSN: 0032-0889 (ISSN print).

=> d 55 so

L22 ANSWER 55 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
SO Crop Science, (January-February 2003) Vol. 43, No. 1, pp. 92-95. print.
ISSN: 0011-183X (ISSN print).

=> d 41-49 ti

L22 ANSWER 41 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN
TI Barley **oxalate oxidase** is a hexameric protein related to seed storage proteins: evidence from X-ray crystallography

L22 ANSWER 42 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN
TI Gene encoding oxalate decarboxylase from Aspergillus phoenices

L22 ANSWER 43 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN
TI Gene expression and **oxalate oxidase** activity of two germin isoforms induced by stress

L22 ANSWER 44 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN
TI Production of **transgenic** tomatoes expressing **oxalate oxidase**

L22 ANSWER 45 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN
TI Regulated expression of a wheat germin gene in tobacco: **oxalate oxidase** activity and apoplastic localization of the heterologous protein

L22 ANSWER 46 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN
TI Degradation of oxalic acid by **transgenic** oilseed rape plants expressing **oxalate oxidase**.

L22 ANSWER 47 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN
TI A fungal oxalate decarboxylase and the gene encoding and their use in control of oxalate levels in plants

L22 ANSWER 48 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN
TI Improving resistance of plants to pathogens by expression of an heterologous **oxalate oxidase** gene.

L22 ANSWER 49 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN
TI Production of plants resistant to Sclerotinia sclerotiorum by introducing a gene coding for an **oxalate oxidase**.

=> d 49 pi

L22 ANSWER 49 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9215685	A1	19920917	WO 1992-FR195	19920304
	W: AU, BG, BR, CA, CS, HU, JP, KR, PL, RO, RU, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
	FR 2673644	A1	19920911	FR 1991-2874	19910305
	FR 2673644	B1	19941202		
	CN 1065683	A	19921028	CN 1992-101989	19920228
	CN 1051576	B	20000419		
	EG 21465	A	20011128	EG 1992-127	19920303
	AU 9216820	A1	19921006	AU 1992-16820	19920304
	AU 660976	B2	19950713		
	EP 531498	A1	19930317	EP 1992-908073	19920304
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	BR 9204788	A	19930727	BR 1992-4788	19920304
	JP 05506582	T2	19930930	JP 1992-507499	19920304
	HU 65677	A2	19940728	HU 1992-3473	19920304
	CZ 289623	B6	20020313	CZ 1992-3369	19920304
	ZA 9201647	A	19921125	ZA 1992-1647	19920305
	US 6229065	B1	20010508	US 1995-400006	19950306
	US 6235530	B1	20010522	US 1995-447703	19950523

=> d 46 so

L22 ANSWER 46 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN
SO Euphytica (1995), 85(1-3), 169-72
CODEN: EUPHAA; ISSN: 0014-2336

=> d 46 ab

L22 ANSWER 46 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN
AB Oxalic acid is thought to have a primary role in the pathogenicity of several plant pathogens, notably Sclerotinia sclerotiorum. A gene coding for **oxalate oxidase** was isolated from barley roots and introduced into oilseed rape as a means of degrading oxalic acid in vivo. This report describes the production of several **transgenic** plants of oilseed rape and the characterization of these plants by Southern, Western and enzyme activity assays. The plants contained **oxalate oxidase** and were tolerant of exogenous oxalic acid.

=> d 57 ti

L22 ANSWER 57 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Soybean plants expressing an active oligomeric **oxalate oxidase** from the wheat gf-2.8 (germin) gene are resistant to the oxalate-secreting pathogen sclerotina sclerotiorum.

=> d 57 so

L22 ANSWER 57 OF 73 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
SO Physiological and Molecular Plant Pathology, (December, 2001) Vol. 59, No. 6, pp. 297-307. print.
CODEN: PMPPEZ. ISSN: 0885-5765.

=> d 44 so

L22 ANSWER 44 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN
SO Acta Horticulturae (1997), 447(Horticultural Biotechnology in Vitro Culture and Breeding), 457-458
CODEN: AHORA2; ISSN: 0567-7572

=> d 48 so

L22 ANSWER 48 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN
SO PCT Int. Appl., 46 pp.
CODEN: PIXXD2

=> d 48 pi

L22 ANSWER 48 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9214824	A1	19920903	WO 1992-GB331	19920224
	W: AU, BB, BG, BR, CA, CS, FI, HU, JP, KP, KR, LK, MG, MN, MW, NO, PL, RO, RU, SD				
	RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GN, GR, IT, LU, MC, ML, MR, NL, SE, SN, TD, TG				
	CA 2107804	AA	19920826	CA 1992-2107804	19920224
	CA 2107804	C	20020430		
	AU 9212074	A1	19920915	AU 1992-12074	19920224
	AU 656761	B2	19950216		
	BR 9205664	A	19940607	BR 1992-5664	19920224
	JP 06504914	T2	19940609	JP 1992-504691	19920224
	HU 67049	A2	19950130	HU 1993-2252	19920224
	HU 214357	B	19980330		
	EP 636181	A1	19950201	EP 1992-905348	19920224
	EP 636181	B1	20001129		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	RU 2136755	C1	19990910	RU 1993-53766	19920224
	RO 114979	B1	19990930	RO 1993-1143	19920224
	AT 197814	E	20001215	AT 1992-905348	19920224
	ES 2152225	T3	20010201	ES 1992-905348	19920224
	US 5866778	A	19990202	US 1994-272514	19940711
	GR 3035217	T3	20010430	GR 2001-400033	20010111

=> d 35-40 ti

L22 ANSWER 35 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN
TI Methods for enhancing stress tolerance in a **transgenic** plant by generation additional capability to produce controlled levels of hydrogen peroxide

L22 ANSWER 36 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN
TI Pathogen-inducible promoters from hexose oxidase genes of sunflower and lettuce

L22 ANSWER 37 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN

TI Synthetic regulatory sequences driving high level gene expression in plants

L22 ANSWER 38 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN
TI Regulation by biotic and abiotic stress of a wheat germin gene encoding **oxalate oxidase**, a H2O2-producing enzyme

L22 ANSWER 39 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN
TI Production of pathogen-resistant plants by genetic engineering of oxalate-degrading or peroxide/reactive oxygen species-producing enzymes

L22 ANSWER 40 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN
TI Recovery of transformed plants without selectable markers by nodal culture and enrichment of **transgenic** sectors

=> d 38 pi

L22 ANSWER 38 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN

=> d 38 so

L22 ANSWER 38 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN
SO Plant Molecular Biology (1999), 39(3), 539-549
CODEN: PMBIDB; ISSN: 0167-4412

=> d 39 pi

L22 ANSWER 39 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9904012	A1	19990128	WO 1998-US14686	19980716
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6166291	A	20001226	US 1998-115488	19980714
AU 9884888	A1	19990210	AU 1998-84888	19980716
AU 734925	B2	20010628		
ZA 9806307	A	19991124	ZA 1998-6307	19980716
EP 990036	A1	20000405	EP 1998-935701	19980716
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
NZ 502195	A	20010928	NZ 1998-502195	19980716
US 6376748	B1	20020423	US 2000-524845	20000314
US 6380460	B1	20020430	US 2000-525174	20000314
US 6380461	B1	20020430	US 2000-525258	20000314
US 6403861	B1	20020611	US 2000-524840	20000314
US 6441275	B1	20020827	US 2000-525256	20000314

=> d 40 so

L22 ANSWER 40 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN
SO PCT Int. Appl., 29 pp.
CODEN: PIXXD2

=> d 30 ti

L22 ANSWER 30 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN
TI Arabidopsis thaliana germin-like proteins: common and specific features point to a variety of functions

=> d 25 ti

L22 ANSWER 25 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN
TI Sunflower genes induced by infection with Sclerotinia and their promoters and their uses

=> d 20 ti

L22 ANSWER 20 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN
TI Reduced herbivory of the European corn borer (Ostrinia nubilalis) on corn transformed with germin, a wheat **oxalate oxidase** gene

=> d 10 ti

L22 ANSWER 10 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN
TI Methods for the identification of inhibitors of **oxalate oxidase** activity in plants as potential herbicides and plant growth regulators

=> d 10 pi

L22 ANSWER 10 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003077648	A2	20030925	WO 2002-US35736	20021107
	WO 2003077648	A3	20040212		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

=> d 5 ti

L22 ANSWER 5 OF 73 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN
TI Increased Septoria musiva resistance in **transgenic** hybrid poplar leaves expressing a wheat **oxalate oxidase** gene.

=> d 5 so

L22 ANSWER 5 OF 73 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved.

(2004) on STN
SO Plant molecular biology, Apr 2001. Vol. 45, No. 6. p. 619-629
Publisher: Dordrecht : Kluwer Academic Publishers.
CODEN: PMBIDB; ISSN: 0167-4412

=> d 6-9 ti

L22 ANSWER 6 OF 73 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN
TI Arabidopsis thaliana germin-like proteins: common and specific features point to a variety of functions.

L22 ANSWER 7 OF 73 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN
TI Regulation by biotic and abiotic stress of a wheat germin gene encoding **oxalate oxidase**, a H2O2-producing enzyme.

L22 ANSWER 8 OF 73 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN
TI Regulated expression of a wheat germin gene in tobacco, **oxalate oxidase** activity and apoplastic localization of the heterologous protein.

L22 ANSWER 9 OF 73 CAPLUS COPYRIGHT 2004 ACS on STN
TI Double-stranded RNAs as replicating expression vectors for plants

=> d 8 so

L22 ANSWER 8 OF 73 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN
SO Plant molecular biology, Feb 1997. Vol. 33, No. 3. p. 417-429
Publisher: Dordrecht : Kluwer Academic Publishers.
CODEN: PMBIDB; ISSN: 0167-4412

=> d 8 ab

L22 ANSWER 8 OF 73 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN
AB Wheat (Triticum aestivum) germin is a homopentameric glycoprotein whose synthesis is allied with seed germination. Germin pentamers show an unusual resistance to dissociation and possess an **oxalate oxidase** (OxO) activity. In order to increase our knowledge of germin gene expression, the function(s) of germin during development and possible uses in plant genetic engineering, an in vivo expression system is required. To this end, a gene for germin. named gf-2.8, was studied by expressing either promoter-GUS fusions or the intact gene in **transgenic** tobacco (Nicotiana tabacum) plants. Heterologous gene transcription was monitored in vitro and in vivo by GUS or OxO activity and was found to occur in developing seeds and in seedlings. This transcription was stimulated by auxins, as would be expected because of the presence of putative auxin-responsive elements in the promoter of the

gf-2.8 gene. Auxin stimulation also extended to young leaves since OxO activity could be detected in treated but not in untreated leaves. The biochemical characteristics of wheat germin were also conserved in a **transgenic** host: the OxO activity was present under the form of a doublet co-migrating with germin G and G' isoforms. Also, germin distributed between a soluble and an apoplastic fractions despite the fact that wheat cell wall substantially differs from tobacco cell wall. Therefore, tobacco constitutes a suitable host for in vivo studies of this monocotyledon gene.

=> d 7 so

L22 ANSWER 7 OF 73 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN

SO Plant molecular biology, Feb 1999. Vol. 39, No. 3. p. 539-549
Publisher: Dordrecht : Kluwer Academic Publishers.
CODEN: PMBIDB; ISSN: 0167-4412